### REMARKS

The Examiner provides a number of objections and rejections. We list them here in the order in which they are addressed.

- Claim 24 is objected to as allegedly being in improper form because a
  multiple dependent claim may only refer to claims in the alternative.
- II. Claims 1-13 and 17-24 are rejected under 35 U.S.C. §101 as allegedly being directed to non-statutory subject matter.
- III. Claim 8 is rejected under 35 U.S.C. §112, first paragraph, as allegedly failing to comply with the written description requirement.
- IV. Claims 1, 7-11 and 17 are rejected under 35 U.S.C. §102(b) as allegedly being anticipated by Stewart *et al.*
- V. Claims 2, 3, 6, 12, 13 and 18-22 are rejected under 35 U.S.C. §103(a) as allegedly being unpatentable over Stewart *et al.* in view of Remsen *et al.*
- VI. Claims 4-5 and 18-22 are rejected under 35 U.S.C. §103(a) as allegedly being unpatentable over Stewart *et al.* in view of Cornell *et al.*

Applicants respond as follows:

### I. Claim 24 is in proper dependent form.

The Examiner has objected to claim 24 as allegedly being in improper form because a multiple dependent claim may only refer to claims in the alternative. The Applicants disagree. Nonetheless, without acquiescing but to further prosecution and hereby expressly reserving the right to pursue the original (or similar) claims in the future, the Applicants have amended claim 24 such that it now refers claims 20-22 in the alternative

### II. Claims 1-13 and 17-24 are directed to statutory subject matter.

The Examiner has rejected claims 1-13 and 17-24 under 35 U.S.C. §101 as allegedly being directed to non-statutory subject matter. The Applicants disagree.

In regards to independent claim 1, the Examiner argues that the claimed method fails to provide a "transformation of matter" and/or a "specific machine or apparatus". First, the Applicants cannot agree that a "processor" is not a particular machine or apparatus as required under 35 U.S.C. §101. The Examiner seems to have inappropriately expanded this requirement under §101 to include a "specific" machine or apparatus. This point is irrelevant, however, in light of the Applicants amendment to claim 1 to clearly demonstrate a transformation step. Specifically, claim 1 now recites the identification and resolution of an ambiguity. Support for such amendment may be found throughout the specification, at for example page 3, lines 19-26. Such amendments are made in the interest of furthering prosecution without acquiescing to the propriety of the underlying rejection; the Applicants also expressly reserve the right to pursue the original (or similar) claims in the future.

The Federal Circuit has recently clarified the transformation requirement set forth in Bilski:

We conclude that the methods of treatment claimed in the patents in suit squarely fall within the realm of patentable subject matter because they transform an article into a different state of thing," and this transformation is "central to the purpose of the claimed process." See Bilski, 545 F.3d at 962. The transformation is of the human body following administration of a drug and the various chemical and physical changes of the drug's metabolites that enable their concentration to be determined. Because the claimed methods meet the transformation prong under Bilski, we do not consider whether they also meet the machine prong.

The Applicants contend that identifying and resolving an ambiguity represents at least as significant of a transformation (i.e. transformation of data) as the biological transformation of a drug metabolite in the human body. Therefore, the method of claim 1 clearly satisfies the statutory subject matter criteria of 35 U.S.C. §101.

<sup>&</sup>lt;sup>1</sup> Prometheus Laboratories, Inc., v. Mayo Collaborative Services; United States Court of Appeals for the Federal Circuit. September 16, 2009.

The Applicants have made similar amendments to independent claim 18 such that it now recites a method that is tied to a particular machine or apparatus and performs a transformation step. Again, these amendments are made in the interest of furthering prosecution without acquiescing to the propriety of the underlying rejection; the Applicants also expressly reserve the right to pursue the original (or similar) claims in the future.

The Applicants have also added new claims 25-29, which further recite an embodiment in which an ambiguity comprising a first and second name is resolved by changing (i.e. transforming) the object associated with said names. Since "change" is transformation, claims 25-27 satisfy the statutory subject matter criteria of 35 U.S.C. §101. Support for new claims 25-29 may be found in the specification in a number of places, including at example 2 (page 26).

# III. Claim 8 complies with the written description requirement of 35 U.S.C. §112, first paragraph.

Claim 8 is rejected under 35 U.S.C. §112, first paragraph, as allegedly failing to comply with the written description requirement. The Applicants disagree. Nonetheless, without acquiescing but to further prosecution and hereby expressly reserving the right to pursue the original (or similar) claims in the future, the Applicants have amended claim 8 such that is no longer recites "and a globally Unique Persistent Identifier (GUID)".

## IV. Claims 1, 7-11 and 17 are not anticipated by Stewart et al.

The Examiner has rejected claims 1, 7-11 and 17 under 35 U.S.C. §102(b) as allegedly being anticipated by Stewart et al. In support of this rejection the Examiner states that Stewart et al. "...discloses systems and methods for resolving named entities through persistent uniquely identified information objects." Office Action, page 5, lines 2-3. Having reviewed this reference generally, as well as the section cited by the Examiner (the entirety of section 3), the Applicants cannot agree that Stewart et al. discloses the system or method recited in claims 1, 7-11 and 17.

Despite the Examiner's assertions, Stewart et al. discloses nothing related to "resolving named entities through persistent uniquely identified information objects." As indicated below, this reference simply examines (and compares) the "retrieval performance" of three Persistent, Location Independent Identifiers (PLI) solutions:

This study examined the retrieval performance of three currently deployed PLI solutions, the URN-based Object Handle system, Persistent, Uniform Resource Locators (PURL) and System Wide Identifiers for Location Look-up (SWILL). See Dissertation Abstract, first page, last paragraph.

Stewart et al. not only fails to disclose the system and method of claims 1, 7-11 and 17, it actually enunciates the various shortcomings of these three systems without providing an actual solution. More importantly, however, the problem being explored by this reference has nothing to do with resolving ambiguities (as recited in claim 1), it merely details the problems associated with "dead" or "stale" links.

Uniform Resource Names (URN), or more generally Persistent, Location-Independent Identifiers (PLIs) promise to resolve many of the long-standing challenges of resource management in distributed systems. Chief among these problems is the issue of "dead links." Abstract, page 1, sentence 1.

#### And.

Uniform Resource Names (URN), or more generally Persistent, Location-Independent Identifiers (PLIs) promise to resolve many of the long-standing challenges of resource management in distributed systems. Chief among these problems is the issue of "dead links." Once an Information Bearing Object has been registered with a PLI scheme, its availability is, theoretically, assured in perpetuity. The reliability of resource availability by this has prompted many system implementers to go to great pains to facilitate inclusion of URNs, in one form or another, in their architectures. Page 8, second paragraph.

#### And.

As the World Wide Web has become the default means of access to Internet resources, with Uniform Resource Locators (URL) as the primary means of identifying those resources, this issue of URL "freshness" has become a primary concern to Internet users. When a network resource is moved from one location to another all links to that resource, in the form of URLs, become "stale" or "dead" links. This effectively renders the resource unreachable unless all previous references to it are manually updated to reflect its new location. This must be done, on average, every 44 days (Lehre 1997). Page 34, first paragraph.

The Examiner does not cite - and the Applicants cannot locate - any teaching within Stewart et al. related to resolving and/or identifying ambiguities between names and entities. Therefore, the tangential disclosure of content identifiers (such as PURL, DOI, URN and URI), networks accessible by third parties and registration agencies cannot be sufficient to support a novelty rejection of independent claim 1, or claims 7-11 and 17 that depend therefrom.

# V. Claims 2, 3, 6, 12, 13 and 18-22 are not obvious over Stewart *et al.* in view of Remsen *et al.*

The Examiner has rejected Claims 2, 3, 6, 12, 13 and 18-22 under 35 U.S.C. §103(a) as allegedly being unpatentable over Stewart *et al.* in view of Remsen *et al.* For at least the reasons stated below, the Applicants cannot agree that this rejection is appropriate.

Specifically, in regards to claims 2, 3, 6, 12, 13 and 20-22, the Applicants repeat the arguments related to Stewart *et al.* (above). Since these claims depend (directly or indirectly) from claim 1, the shortcomings of Stewart *et al.* as a reference under 35 U.S.C. §102(b) also render it insufficient to support a rejection under 35 U.S.C. §103(a).

In regards to the remaining claims (18 and 19), the Applicants are unclear as to what exactly is being rejected. Independent claim 18 says nothing about "a name resolution service" – in fact, the term "resolution" does not even appear in this claim. Thus, while the Applicants continue to disagree with the Examiner's conclusions regarding the teachings of Stewart et al., even if those teachings were accurate they would not implicate independent claim 18.

# VI. Claims 4-5 and 18-22 are not obvious over Stewart *et al.* in view of Cornell *et al.*

The Examiner has rejected claims 4-5 and 18-22 under 35 U.S.C. §103(a) as allegedly being unpatentable over Stewart et al. in view of Cornell et al. The Applicants disagree. Briefly, the rational supporting the rejection of claims 4, 5 and 20-22 is essentially identical to the previous rejection of claims 2, 3, 6, 12, 13 and 20-22 based on Stewart et al. in view of Remsen et al. The Applicants therefore repeat their arguments

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relating to the propriety of Stewart *et al.* as a primary reference and contend that the rejection of claims 4, 5 and 20-22 is likewise improper. The Applicants also repeat their arguments relating to the rejection of claims 18 and 19.

It seems that the Examiner may have mistakenly read claims 20-22 as depending from claim 19 rather than claim 9. The Applicants recognize the potential for such confusion and assure the Examiner that this was not their intent.

#### CONCLUSION

Based on the arguments provided above, Applicants believe that claims 1-13 and 17-29 are in condition for allowance. Should the Examiner believe a telephone interview would aid in the prosecution of this application, the Applicants encourage the Examiner to call the undersigned at 781.828.9870.

Respectfully submitted,

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Peter G. Carroll Registration No. 32, 837

MEDLEN & CARROLL, LLP 101 Howard Street, Suite 350 San Francisco, CA 94105